

Mostafa Kiani Shahvandi

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Areas of Expertise

geoscience . geodesy . geophysics . remote sensing

Technical Skills

MATLAB . C++ . Mathematica . Python . Maple . Bernese . GAMIT . ArcGIS

Education

2017-2019	M.Sc. in geodesy	University of Tehran, Iran	GPA: 19.25 (out of 20)	Thesis:Earth's gravity field modelling using ellipsoidal splines
2013-2017	B.Sc. in geomatics	University of Tehran, Iran	GPA: 17.69 (out of 20)	Thesis:geopotential models comparison with GPS levelling: A case study for Iran

Honors and Achievements

National best alumni award, across all Iranian universities (2020)
1st honorary M.Sc. student among 14 students (2019)
1st M.Sc. examinee among 46 advanced students in national Olympiad (2018)
The best engineering student award (FOE) for 8 terms (2014-2018)
A member of the national elite's foundation and received financial aid award

Publications

- * M. Kiani Shahvandi "A new optimal image smoothing method based on generalized discrete iterated Laplacian minimization and its application in the analysis of earth's surface using satellite remote sensing imagery", *Earth Sci Inform*, 14, pp 81–97, 2021.
- * M. Kiani Shahvandi "Applications of numerical integration in geodesy and geophysics", *Acta Geophys*, 2021.
- * M. Kiani "Numerical solution of ordinary differential equations in geodetic science using adaptive Gauss numerical integration method", *Journal of Acta Geodaetica et Geophysica*, 55, pp. 277–300, 2020.
- * M. Kiani "Simultaneous approximation of a function and its derivatives by Sobolev polynomials: Applications in satellite geodesy and precision orbit determination for LEO CubeSats", *Journal of Geodesy and Geodynamics*, 11(5), pp 376-390, 2020.
- * M. Kiani "Local geoid height approximation and interpolation using moving least squares approach", *Journal of Geodesy and Geodynamics*, 11(2), pp. 120-126, 2020.
- * M. Kiani "Template-based smoothing functions for data smoothing in geodesy", *Journal of Geodesy and Geodynamics*, 11(4), pp. 300-306, 2020.
- * M. Kiani "Spherical approximating and interpolating moving least squares in geodesy and geophysics: A case study for deriving gravity acceleration at sea surface in the Persian Gulf", *Journal of geodetic science*, 10, pp 124-135, 2020.

* M. Kiani, N. Chegini, A. Safari, B. Nazari, "Producing gravity acceleration at sea surface in Persian Gulf using ellipsoidal splines", *jgit*, 8(1), pp 63-78, 2020.

* M. Kiani, N. Chegini, A. Safari, B. Nazari "Spheroidal spline interpolation and its application in geodesy". *Geodesy and Cartography*, 46(3), pp 123-135, 2020.

* M. Kiani, N. Chegini, "Ellipsoidal spline functions for gravity data interpolation and smoothing", *Journal of Earth Observation and Geomatics Engineering*, 3(2), pp. 1-11, 2019.